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AUTHOR Searle, A. Gary
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ABSTRACT

A study was conducted to determine microcomputer hardware, software, and inservice components of secondary marketing education programs. A questionnaire was developed and sent to 420 teacher-coordinators in 42 states. A total of 225 (54 percent) usable returns were tabulated at the University of Wisconsin-Stout Computer Center. Results of the study were compiled in these six categories: hardware, instructional software, operations software, teacher experience, inservice needs, and microcomputer availability. The study concluded that Apple is the most popular brand of microcomputer in secondary marketing programs. A wide variety of instructional and operations software is available and presently being used in marketing education--four programs were listed as most popular in instructional uses: Jeans Factory, Lemonade Stand, Enterprise Sandwich Shop, and Profit and Loss. Most popular operations software programs were Apple Grade Book, Apple Works, VisiCalc, Print Shop, and others. Results showed that secondary marketing educators definitely need help with software review/evaluation and practical applications for their microcomputer curriculum. Recommendations were made for preservice and inservice programs for marketing teachers in the use of microcomputers and for further research to determine educational needs. (An addendum to the report provides 30 vendors' addresses and four pages of instructional and operations software.) (KC)

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Microcomputer Usage in Secondary Marketing Education

A National Study

A. Gary Searle

Program Director, Marketing Education

University of Wisconsin-Stout

423 Harvey Hall

Menomonie, WI 54751

715/232-1493

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Abstract

Microcomputer Usage in Secondary Marketing Education

The objectives of the study were to determine microcomputer hardware, software, and needed in-service components of secondary marketing education programs.

The purpose was to provide information that will lead to efficient implementation of microcomputers in secondary marketing education curriculums.

A questionnaire was developed and sent to 420 teacher-coordinators in 42 states. A total of 225 (54%) usable returns were tabulated at the University of Wisconsin-Stout Computer Center.

Results of the study were presented in the following six categories: hardware, instructional software, operations software, teacher experience, in-service needs, and microcomputer availability.

The study determined the most popular hardware and software currently in use as well as recognized a strong need for microcomputer pre- and in-service training for secondary marketing educators.

MICROCOMPUTER USAGE IN SECONDARY MARKETING EDUCATION

A NATIONAL STUDY

Introduction

The integration of microcomputers into the secondary marketing education curriculum must be accomplished in an efficient, cost-conscious manner. After roughly three years of widespread acquisition of microcomputer hardware and software, many marketing educators are asking where and how computer power fits in the curriculum process. Many of the instructors who have microcomputers are still inexperienced and uncertain about how to apply instruction to most effectively prepare their students for business and industry.

Objectives

The specific objectives of this study were to determine what microcomputer hardware and software were presently being utilized in secondary marketing education classrooms across the country. An additional objective was the determination of in-service needs for the marketing teacher-coordinators.

Purpose of the Study

The purpose of this study was to provide information that might lead to more efficiency when integrating microcomputers into the secondary marketing education classroom. The study is to produce findings which may provide teacher-coordinators with a partial basis for the purchase of specific hardware and software.

A secondary purpose of the study was to provide teacher educators, state supervisors and other personnel with information on current and emerging in-service opportunities.

Methods and Procedures

A tentative questionnaire to determine microcomputer information was developed. The content of the questionnaire was based on a review of current writings, two microcomputer surveys developed in 1983 by Dr. Delbert Carson (Industrial Arts Education) of Millersville University of Pennsylvania, and a microcomputer survey developed in 1984 by Ms. Carol Tollefson (Marketing Education) of Beaver Dam, Wisconsin. A jury of five marketing educators was utilized to review, clarify, and revise the questionnaire.

After the jury of marketing educators approved the questionnaire, a pilot study was conducted with eleven secondary marketing educators who were enrolled in a microcomputer applications course at the University of Wisconsin-Stout. The purpose was to determine clarity of the questionnaire. Changes that improved understanding and readability were suggested and implemented.

All secondary marketing education state supervisors were contacted and asked to randomly select ten secondary teacher-coordinators from their state for the study. If the state supervisor did not respond, a teacher educator in that state was contacted for the names. Seventeen teacher educators were utilized. A list of 420 teacher-coordinators from 42 states* was compiled, and questionnaires were mailed to them in the spring of 1985. Returns totaled 226, with one improperly addressed and unusable, for a 54 percent return. The responses were tabulated at the University of Wisconsin-Stout Computer Center.

*No responses - Alaska, Hawaii, Maine, Maryland, Massachusetts, Nevada, Pennsylvania, Utah

Summary of Results

The questionnaire yielded a great deal of data. Results are summarized in the following six categories.

Hardware. Apple, TRS 80, and IBM PC were the most commonly used microcomputers in marketing education classrooms. The availability of four different models gave Apple a commanding lead in market share, with one model, Apple IIE, found in over half of all marketing education classrooms.

Instructional Software. Teachers listed a wide variety of software within 15 instructional units. Four programs, Jeans Factory, Lemonade Stand, Enterprise Sandwich Shop, and Profit and Loss, dominated the list and were selected for multiple use in different instructional units. For example, Enterprise Sandwich Shop was used for sales, economics, entrepreneurship, management, and principles of marketing.

Nearly half the teachers used small group instruction to teach the software programs. Individualized instruction was next, with large group instruction a distant third.

Operations Software. Over 80 different software programs were listed. The most popular were: grading - Apple Grade Book; word processing - Apple Works; spreadsheet - VisiCalc; computer graphics - Print Shop; games - Crossword Magic and Teacher Utilities; drill and practice - Data Entry and Typing Tutor; data base - Apple Works; test bank - Teacher's Pal; test review - Quiz Writer; simulations - Marketing Peanut Butter and Gadgetronics; and school store - School Store Program.

Teacher Experience. The marketing instructors had an average of 9.8 years of teaching experience. When asked to rate their microcomputer

knowledge, only a small minority selected "excellent," while over half said they definitely need help. One-quarter of the teachers owned a personal computer; the Apple IIE was the most popular.

In-Service Needs. Software review/evaluation and practical applications were assessed as major in-service agenda items. Over three-quarters of the teachers have taken one or more microcomputer courses, but that same number expressed a strong desire for in-service programs. Insufficient teacher knowledge was listed as a major obstacle to using microcomputers, but it was preceded by inadequate money and time for implementation.

Microcomputer Availability. Almost all the marketing teachers responding to the survey had microcomputers available in their schools and three-quarters of the teachers had them in their departments. While seven was the average number, one-third of the teachers had just one microcomputer available for their students.

In the addendum to this report, a multiplicity of additional instructional and operations software is listed along with the vendor.

Conclusions

The following conclusions of the study were reached based on a national study of microcomputer usage in secondary marketing education as perceived by teacher-coordinators:

1. Apple is the most popular brand of microcomputer in secondary marketing programs.
2. A wide variety of instructional and operations software is available and presently being used in marketing education. Specific programs are listed in the Addendum.

3. Secondary marketing educators definitely need help with software review/evaluation and practical applications for their microcomputer curriculum.

Recommendations

The following recommendations are suggested based on this study:

1. Teacher educators, state and local supervisors of marketing education should provide pre-service and in-service opportunities for secondary teacher-coordinators to address their needs relative to microcomputers.
2. Specific research should be conducted to determine the components of a quality microcomputer pre- and in-service program for secondary marketing educators.

ADDENDUM

(Vendor List)
(Instructional Software)
(Operations Software)

VENDOR LIST *

1 - Apple Computer Corporation, 400 Unicorn Park Drive, Woburn, MA 01801

2 - Basic Programming Services, 16152 Hiland Circle, Brighton, CO 80601

3 - Broderbund Software, c/o David Balsam/Martin Kahn 415-775-2384

4 - Commodore Business Machines, 20525 Mariana Avenue, Cupertino, CA 95014

5 DECA, 1908 Association Drive, Reston, VA 22091-1594

6 - Gass, Dr. Michael, Bellevue, WA 98006

7 - Gregg Division, McGraw-Hill Book Publishing Co., Manchester Road, Manchester, MO 63011

8 - IBM Corporation, P.O. Box 1328, Boca Raton, FL 33432

9 - IDECC, 1564 West First Avenue, Columbus, OH 43212

10 - Illinois State Board of Education, Springfield, IL 62700

11 - K-Micro Media, Inc., 172 Broadway, Woodcliff Lake, NJ 07675

12 - Lawrence Public Schools, Lawrence, KS 66044

13 - McGraw-Hill Book Publishing Co., Manchester Road, Manchester, NI 63011

14 - MCE, Inc., 157 S. Kalamazoo Mall, 250, Kalamazoo, MI 49007

15 - MECC, 3490 Lexington Avenue North, St. Paul, MN 55112

16 - Micro Learningware, Hwy. 66 South, P.O. Box 307, Mankato, MN 56001

17 - Micro Software Publishing, 2310 Oxford Road, Tallahassee, FL 32304

18 - Oakland Schools, Oakland, MS 38948

19 - Oklahoma State Department of Education, Stillwater, OK 74074

20 - Phillips Petroleum Co., Bartlesville, OK 74003

21 - Radio Shack, One Tandy Center, Fort Worth, TX 76102

22 - Scholastic, Inc., 730 Broadway, New York, NY 10003

23 - Sensible Software, 210 South Woodward Suite 229, Birmingham, MI 48011

24 - Small Business Systems Groups, Westford, MA 01886

25 - South-Western Publishing Co., 5101 Madison Road, Cincinnati, OH 45227

26 - Missouri State Department of Education, Counseling Dept., Jefferson City, MO 65101

27 - Sunburst Communications, Inc., 39 Washington Ave., Pleasantville, NY 10570

28 - T-Maker, 2115 Landings Drive, Mountain View, CA 94043

29 - University of Oregon, School of Education, Corvallis, OR 97330

30 - Wichita Public Schools, Wichita, KS 67200

*Addresses are listed as found on the questionnaire.

INSTRUCTIONAL SOFTWARE*

ADVERTISING

1 - Print Shop (1)
1 - Lemonade Stand
2 - Advertising Layout & Copy
2 - Advertising Layout & Design
9 - Advertising Services
13 - Sandwich Shop
14 - Analyzing An Ad
20 - Jeans Factory (2)

BASIC SKILLS

28 - T-Maker

CAREERS

1 - AppleWorks
2 - Airline Reservation Program
2 - Airline Training
12 - Career Education
14 - Job Readiness & Assessment
14 - Job Survival Skills
19 - View
26 - Micro-View
29 - CISI

COMMUNICATION

1 - AppleWorks
15 - Job Interview
28 - T-Maker

DECA

1 - AppleWorks
1 - Print Shop (1)
5 - CBCE Exams (2)
9 - IDECC (3)
20 - Phillips Free Enterprise

DISPLAY

1 - Print Shop
2 - Display Vol. I
2 - Display Vol. II (2)
2 - Merchandising Display (1)

ECONOMICS

1 - Lemonade Stand
9 - Economics & Marketing
11 - Economics-What, How, For Whom (2)
13 - Ammortization/Business Vol. I
13 - Enterprise Sandwich Shop (3)
13 - Profit and Loss
20 - Jeans Factory (1)
25 - Financial Cookbook
27 - Whatsit Corporation

ENTREPRENEURSHIP

1 - Appleworks
8 - Management Simulations - Junior Achievement
13 - Enterprise Sandwich Shop (2)
13 - Profit and Loss (3)
15 - Business Package
20 - Jeans Factory (1)
25 - Gadgetronics

HUMAN RELATIONS

None

MANAGEMENT

1 - Lemonade Stand
6 - School Store Management System
10 - 216B Micro-Computer Applications w/Vocational Education
13 - Donut Shoppe
13 - Enterprise Sandwich Shop (2)
13 - Profit and Loss
15 - Business Vol. II
15 - Social Studies Vol. III
20 - Jeans Factory (1)
25 - Automated Accounting
25 - Gadgetronics
27 - Whatsit Corporation (3)

*See attached vendor list
Numbers following software are teachers' priority

INSTRUCTIONAL SOFTWARE*(cont.)

MARKETING PRINCIPLES

1 - Lemonade Stand
2 - Pricing & Markup
13 - Enterprise Sandwich Shop (2)
13 - Marketing Peanut Butter (3)
13 - Profit and Loss (3)
20 - Jeans Factory (1)
25 - Gadgetronics

MATH

1 - Markup & Markdown
2 - Markup (3)
2 - Pricing & Markup (2)
16 - Change Maker (1)
25 - Gadgetronics
27 - Insurance Math
27 - Managing Lifestyles - Survival Math Skills (2)
27 - Math for Banking
27 - Survival Math

MERCHANDISING

1 - AppleWorks
2 - Pricing & Markup (1)
9 - General Merchandising
13 - Profit and Loss (2)
13 - Sandwich Shop
21 - Inventory System

OPERATIONS

2 - School Store Programs (2)
13 - Profit and Loss
13 - Sandwich Shop
20 - Jeans Factory (1)
21 - Accounts Receivable
21 - General Ledger I
21 - Inventory
25 - Data Entry Activities (1)

SALES

1 - Lemonade Stand (1)
1 - Print Shop
13 - Marketing Peanut Butter
13 - Profit and Loss
13 - Sandwich Shop (2)
20 - Jeans Factory

OTHER

1 - AppleWriter
1 - Print Shop
5 - CBCE
8 - Private Tutor
9 - Individual LAPS
14 - Comparative Buying
20 - Jeans Factory
25 - Gadgetronics

*See attached vendor list

Numbers following software are teachers' priority

OPERATIONS SOFTWARE*

COMPUTER GRAPHICS

1 - McDraw Chart
1 - McGraph
1 - McPaint (2)
1 - Mouse Paint
1 - Print Shop (1)
2 - Library
2 - PFS Graph (3)

DATA BASE

1 - AppleWriter (PFS)
1 - AppleWorks (1)
1 - Mac Filer
21 - Profile
21 - Profile Plus
21 - Profile III Plus
28 - T-Maker

DRILL AND PRACTICE

1 - Typing Tutor
9 - IDECC
15 - Apple DEMO
15 - Teacher Utilities
16 - Change Maker
25 - Data Entry
25 - Typewriter Keyboarding

GAMES

1 - Apple Play
1 - Apple Presents Apple
1 - Golden Delicious
1 - Lemonade Stand
13 - Enterprise Sandwich Shop
13 - Profit and Loss (1)
15 - MECC
15 - Teacher Utilities
27 - Survival Math - Travel Agent

GRADEBOOK

1 - Apple Gradebook (1)
2 - Grade Book
2 - Grade Book II
8 - Visicalc
15 - Grade Manager
15 - MECC
17 - Multiplan
23 - Report Card (3)
25 - Teacher Aid
25 - Teacher's Pal (2)
30 - Gradebook

SCHOOL STORE

1 - AppleWriter (PFS)
1 - AppleWorks
2 - School Store Disk
2 - School Store Programs
6 - School Store Management System
6 - Student Store Management System
18 - Inventory & Accounting
21 - General Ledger
21 - Inventory Control
21 - Inventory System (1)
24 - Inventory
25 - Inventory
28 - T-Maker

SIMULATIONS

1 - Lemonade Stand
8 - Free Enterprise
8 - Typing Tutor
13 - Enterprise Sandwich Shop (2)
13 - Marketing Peanut Butter
13 - Profit and Loss (3)
15 - MECC
16 - Business Education Package
20 - Jeans Factory (1)
21 - Corplan
21 - Inventory
25 - Data Entry Activities
25 - Gadgetronics
27 - Whatsit Corporation

*See attached vendor list

Numbers following software are teachers' priority

OPERATIONS SOFTWARE* (cont.)

SPREAD SHEET

1 - AppleWorks (2)
1 - AppleWriter (PFS)
17 - Multiplan (3)
21 - Visicalc (1)
28 - T-Maker

TEST BANK

1 - AppleWorks
8 - Authoring
9 - IDECC
15 - MECC
15 - Teacher Utilities (2)
25 - Structured Basic (3)
25 - Teacher's Pal (1)

TEST REVIEWING

9 - CBCE Exam Software (1)
9 - IDECC (2)
15 - MECC
15 - Resume, Careers, Etc.
15 - Teacher Utilities
21 - Quick Quiz

TUTORIAL

1 - Step by Step
1 - Typing Tutor (1)
5 - Structured Basic
15 - Diskettes

WORD PROCESSING

1 - AppleWriter (1)
1 - AppleWorks
1 - PFS Write (4)
4 - Easy Script
8 - Homeword
8 - Word Star
21 - Scriptsit (2)
21 - Superscript (3)
22 - Bankstreet Writer (3)
28 - T-Maker

OTHER

1 - Apple Core I, II, III
1 - AppleWorks
21 - Deskmate by Tandy

*See attached vendor list

Numbers following software are teachers' priority